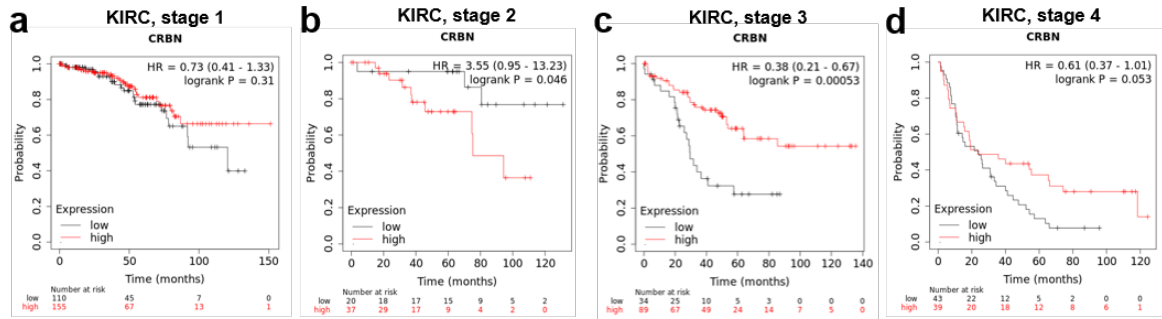
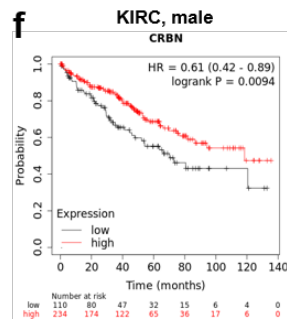
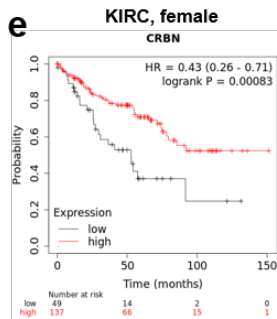


# 1 Supplementary Figure

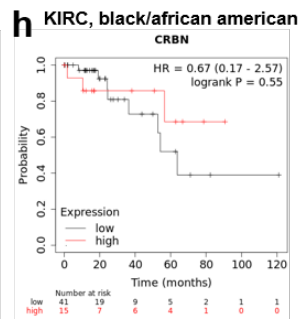
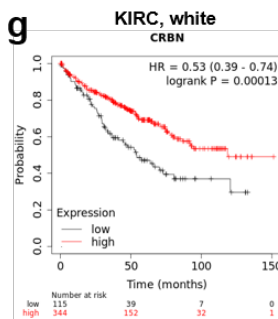
## KIRC, Stage



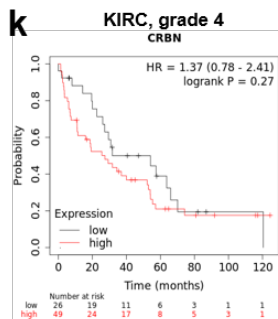
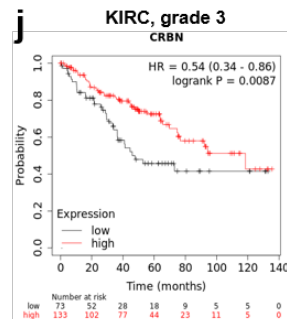
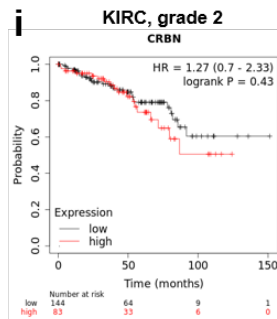
## KIRC, Gender



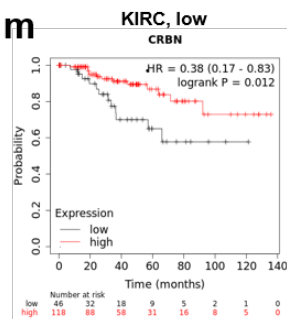
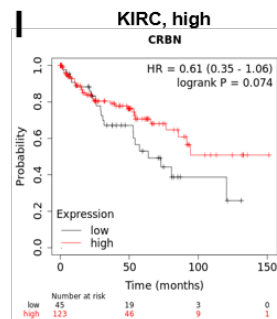
## KIRC, Race



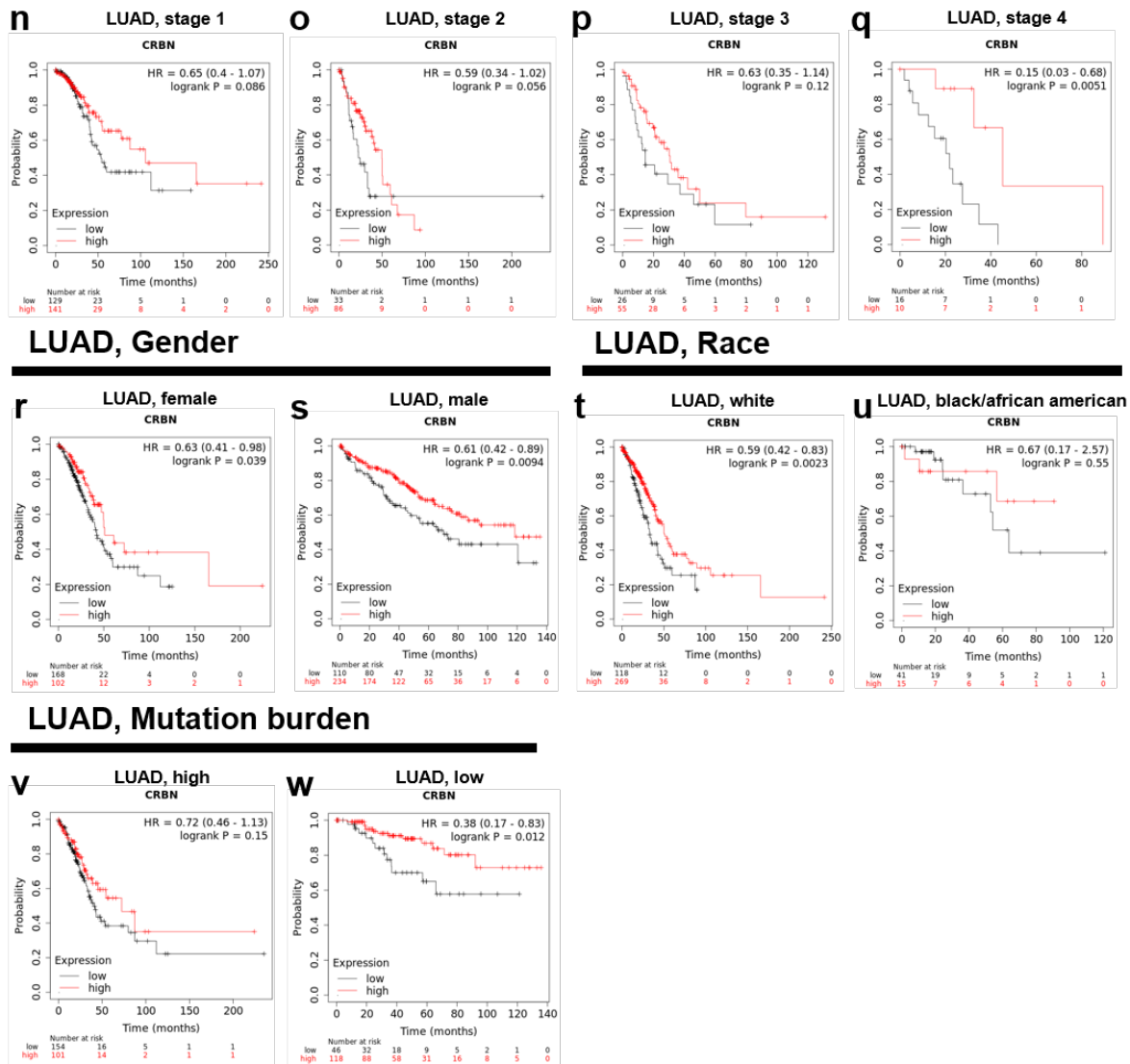
## KIRC, Grade



## KIRC, Mutation burden



# LUAD, Stage



**Supplementary figure S1. Correlation of CRBN expression to the KIRC and LUAD patient's overall survival determined by each clinicopathological factor in Km plotter.** Overall survival about the high and low CRBN expression in kidney renal clear cell carcinoma (KIRC) patients restricted to subtypes of stage (a-d), gender (e-f), race (g-h), grade (i-k), and mutation burden (l-m). Likewise, prognostic relevance of CRBN in lung adenocarcinoma (LUAD) patients confined by stage (n-q), gender (r-s), race (t-u), and mutation burden (v-w).

## Supplementary Tables

**Supplementary table S1. Statistical significances between each intra-clinicopathological subfactor in KIRC, LUAD, and SKCM. \*P<0.05, \*\*P<0.01, \*\*\*P<0.001**

| Clinicopathological factor     |         | p-value  |          |
|--------------------------------|---------|----------|----------|
|                                |         | KIRC     | LUAD     |
| <b>Cancer stage</b>            |         |          |          |
| Normal-vs-                     | stage 1 | ***      | ***      |
|                                | stage 2 | ***      | ***      |
|                                | stage 3 | ***      | ***      |
|                                | stage 4 | ***      | ***      |
| Stage 1-vs-                    | stage 2 | 2.57E-01 | 6.00E-02 |
|                                | stage 3 | ***      | 2.05E-01 |
|                                | stage 4 | ***      | 8.99E-01 |
| stage 2-vs-                    | stage 3 | *        | 7.61E-01 |
|                                | stage 4 | *        | 3.05E-01 |
| stage 3-vs-                    | stage 4 | 6.58E-01 | 4.37E-01 |
| <b>Tumor grade</b>             |         |          |          |
| Normal-vs-                     | grade 1 | 5.31E-01 | -        |
|                                | grade 2 | ***      | -        |
|                                | grade 3 | ***      | -        |
|                                | grade 4 | ***      | -        |
| Grade 1-vs-                    | grade 2 | 5.60E-02 | -        |
|                                | grade 3 | ***      | -        |
|                                | grade 4 | ***      | -        |
| Grade 2-vs-                    | grade 3 | ***      | -        |
|                                | grade 4 | ***      | -        |
| Grade 3-vs-                    | grade 4 | ***      | -        |
| <b>Nodal metastasis status</b> |         |          |          |
| Normal-vs-                     | N0      | ***      | ***      |
|                                | N1      | ***      | ***      |
|                                | N2      | -        | ***      |
|                                | N3      | -        | *        |
| N0-vs-                         | N1      | *        | 1.19E-01 |
|                                | N2      | -        | 1.19E-01 |
|                                | N3      | -        | 8.59E-01 |
| N1-vs-                         | N2      | -        | 9.22E-01 |
|                                | N3      | -        | 9.40E-01 |

|                                 |                           |     |          |
|---------------------------------|---------------------------|-----|----------|
| N2-vs-                          | N3                        | -   | 9.21E-01 |
| <b>KIRC subtypes</b>            |                           |     |          |
| Normal-vs-                      | ccA subtype               | *** | -        |
|                                 | ccB subtype               | *** | -        |
| ccA subtype-vs-                 | ccB subtype               | *** | -        |
| <b>Smoking habits</b>           |                           |     |          |
| Normal-vs-                      | Non smoker                | -   | ***      |
|                                 | Smoker                    | -   | ***      |
|                                 | Reformed smoker (<15 yrs) | -   | ***      |
|                                 | Reformed smoker (>15 yrs) | -   | ***      |
|                                 | Smoker                    | -   | ***      |
| Non smoker-vs-                  | Reformed smoker (<15 yrs) | -   | 2.09E-01 |
|                                 | Reformed smoker (>15 yrs) | -   | **       |
| smoker-vs-                      | Reformed smoker (<15 yrs) | -   | ***      |
|                                 | Reformed smoker (>15 yrs) | -   | 5.10E-02 |
| Reformed smoker (<15 years)-vs- | Reformed smoker (>15 yrs) | -   | *        |

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16 **Supplementary table S2. Abbreviation of TCGA cancer types**

| Abbreviation | Type of Cancer                                                   |
|--------------|------------------------------------------------------------------|
| ACC          | Adrenocortical carcinoma                                         |
| BLCA         | Bladder Urothelial Carcinoma                                     |
| BRCA         | Breast invasive carcinoma                                        |
| CESC         | Cervical squamous cell carcinoma and endocervical adenocarcinoma |
| CHOL         | Cholangio carcinoma                                              |
| COAD         | Colon adenocarcinoma                                             |
| DLBC         | Lymphoid Neoplasm Diffuse Large B-cell Lymphoma                  |
| ESCA         | Esophageal carcinoma                                             |
| GBM          | Glioblastoma multiforme                                          |
| HNSC         | Head and Neck squamous cell carcinoma                            |
| KICH         | Kidney Chromophobe                                               |
| KIRC         | Kidney renal clear cell carcinoma                                |
| KIRP         | Kidney renal papillary cell carcinoma                            |
| LAML         | Acute Myeloid Leukemia                                           |
| LGG          | Brain Lower Grade Glioma                                         |
| LIHC         | Liver hepatocellular carcinoma                                   |
| LUAD         | Lung adenocarcinoma                                              |
| LUSC         | Lung squamous cell carcinoma                                     |
| MESO         | Mesothelioma                                                     |

|      |                                      |
|------|--------------------------------------|
| OV   | Ovarian serous cystadenocarcinoma    |
| PAAD | Pancreatic adenocarcinoma            |
| PCPG | Pheochromocytoma and Paraganglioma   |
| PRAD | Prostate adenocarcinoma              |
| READ | Rectum adenocarcinoma                |
| SARC | Sarcoma                              |
| SKCM | Skin Cutaneous Melanoma              |
| STAD | Stomach adenocarcinoma               |
| TGCT | Testicular Germ Cell Tumors          |
| THCA | Thyroid carcinoma                    |
| THYM | Thymoma                              |
| UCEC | Uterine Corpus Endometrial Carcinoma |
| UCS  | Uterine Carcinosarcoma               |
| UVM  | Uveal Melanoma                       |

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